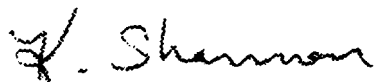


I know your time is valuable, and that filling out questionnaires isn't much fun. So, for being such a good sport about it, we'd like you to have an *Official NFL Sports Bag* with the insignia and team colors of your choice. Please accept this sturdy nylon bag as a "thank you" from GTE, official telecommunications consultant to the National Football League.

Your GTE Account Manager will be happy to answer any questions you may have about VMA. If you don't have a GTE Account Manager, call 1-800-825-4228 if you're east of the Mississippi, or 1-800-437-0694 west of the Mississippi. I'm sure that, once you've discovered what VMA can do, you'll be excited by its possibilities.

Sincerely,

A handwritten signature in cursive script that reads "K. Shannon".

Kathie Shannon
Product Manager, Network Services
GTE

PS - When you fill out your questionnaire, be sure to indicate which NFL team's insignia and colors you want on your *Official NFL Sports Bag*!

Voice Messaging Questionnaire

Please complete the following questionnaire by placing an 'X' for the most appropriate answers. The questionnaire can be returned in the enclosed postage-paid envelope. Thank you for your help.

Company Demographics

1. What Telecommunications Service do you consider to be your primary business? ... Secondary ?

2. What standard industrial classification (SIC) code best describes your business?

<input type="checkbox"/> 3363	<input type="checkbox"/> 5999	<input type="checkbox"/> 8999
<input type="checkbox"/> 4812	<input type="checkbox"/> 7299	<input type="checkbox"/> Other
<input type="checkbox"/> 4813	<input type="checkbox"/> 7389	

3. What type(s) of voice messaging system do you provide for your customers? (Check all that apply)

<input type="checkbox"/> Answering Service
<input type="checkbox"/> Answering Machine
<input type="checkbox"/> Voice Mail
<input type="checkbox"/> Paging
<input type="checkbox"/> Customer Premise Equipment
<input type="checkbox"/> PBX
<input type="checkbox"/> PC
<input type="checkbox"/> Other. If so, what type? <input type="text"/>
<input type="checkbox"/> None

4. What percent of your sales are derived from business vs. residential customers?

	<i>% of Accounts</i>	<i>% of Revenue</i>
Residential	<input type="text"/>	<input type="text"/>
Business	<input type="text"/>	<input type="text"/>
TOTAL	100%	100%

5. Approximately how many customers do you serve?

<input type="text"/> Residential Customers	<input type="text"/> Business Customers
--	---

6. In which states do you provide enhanced services? Please list.

7. In which cities or states are you considering offering services in the future? Please list.

8. How many people are employed at this location full time?

_____ Employees

9. Which of these categories includes your approximate annual revenue?

_____ Under \$250,000

_____ \$250,000 but less than \$500,000

_____ \$500,000 but less than \$750,000

_____ \$750,000 but less than \$1 million

_____ \$1 million or more

10. Which 3 cities provide the greatest revenue for your firm?

1. _____

2. _____

3. _____

11. Do you currently use a voice messaging system at your office?

_____ Yes

_____ No

12. Who is your local telephone company? _____

If you conduct business in more than one city, please provide the local telephone company for each of the top three revenue producing cities.

13. What are your estimated monthly telephone expenditures?

_____ \$2,500 or less

_____ \$2,501 – \$5,000

_____ \$5,001 – \$15,000

_____ \$15,001 – \$24,999

_____ more than \$25,000

Please Attach Your Business Card Here:

Your name:

Your title:

Company name:

Address:

My favorite NFL team is _____

Please allow 4-6 weeks for delivery of your *Free NFL Sports Bag*.

PRODUCT BULLETIN

Enhanced Service Provider Services (Basic Service Elements) Available in California

January 7, 1992
Reference: 910451

GTE Telephone Operations announces the tariffed availability of Enhanced Service Provider (ESP) Services. ESP Services are the Network Basic Service Elements for an ESP to offer Enhanced Services such as Voice Messaging. These services include:

- Call Forward (Busy, No Answer, Busy/No Answer),
- Message Waiting Indication,
- Forwarded Call Information,
- Data Link,
- Queuing, and
- User Transfer Capabilities.

The following terms need to be defined before the ESP Services can be fully explained.

Basic Service Elements (BSEs)

BSEs are network services described in the product description section of this bulletin. ESPs may order the BSEs to connect to GTE's local exchange to provide Voice Messaging Service (VMS) or another enhanced service to the ESP's customers.

Enhanced Service Provider (ESP)

An ESP is a customer who provides enhanced services, including Voice Messaging. These enhanced services are computer-processing based and are deregulated. GTE is a BSE provider as well as an Enhanced Service Provider (ESP).

The attached describes ESP Services and refers to the ESP sales kit. The ESP sales kit is a package to be sent to potential ESPs to describe the network interface GTE can offer. Included in this kit is a technical description of the interconnection required for the central office in which the customer will be interfacing (including the 5ESS, 1AESS, GTD-5, and DMS-100), the tariff for the BSEs, and a recommended letter to the ESP explaining what GTE will provide and how to obtain the interface. The recommended contents of the ESP letter is in Appendix 1 of this product bulletin.

If you have any questions about the contents of this kit call Product Sales Support at 1-800-FON-GTE4 or 1-800-FON-GTE5, 8:00 a.m. to 5:00 p.m. Central Time, Monday through Friday. Calls received after these hours will be returned as early as possible the next work day.

Author: Barry McHaffie, Product Marketing

Contributors: Tim Britt, Product Marketing
Kathie Shannon, ESP Services
Roger Gallenstein, Product Management
Danny Worthy, Product Marketing

Publisher: Sheri L. Boone, Product Marketing

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Background

Telecommunication services which employ computer processing applications, provide additional information, or involve end user interaction with stored information are enhanced information services. Voice Messaging Service (VMS) is one of these enhanced services. In March 1988, deregulation allowed the Regional Bell Operating Companies (RBOCs) to become Enhanced Service Providers (ESPs) and to offer certain enhanced information services. A relief provision in GTE's Consent Decree permits the GTE Telephone Operating Companies (GTOCs) to offer enhanced services on an integrated basis like the RBOCs. Therefore, GTE is providing network services for our own use in Voice Messaging as well as allowing the sale of these services to other ESPs.

Along with VMS, GTE offers VMS access service utilizing several central office features and functions, known as Basic Service Elements (BSEs). This technology is now available to ESPs who, in turn, can provide voice messaging and other enhanced services to residential customers, to small business customers who cannot afford the large capital outlay to purchase voice messaging CPE, and to larger business customers who don't wish to purchase CPE.

GTE's primary objectives for tariffing these BSEs are to offer quality network services that meet the requirements of ESPs for the provision of enhanced information services, to increase call completions through a more efficient use of the network, and to increase revenues. Further, GTE is entering the voice messaging market as an ESP to offer our own service to single-line residences and businesses, and CentraNet customers. As such, GTE is a purchaser of the tariffed BSEs along with other ESPs in the marketplace.

Product Description

ESP Services introduces eight new network features (BSEs), that provide interconnection and functionality to equipped central offices for voice messaging ESPs in GTE's territory. These BSEs may only be provided to ESPs as described in the proposed tariff, included in this ESP sales kit, and will be available on an individual, unbundled basis at tariffed rates.

BSEs do not need to be purchased by the ESP in order to provide Voice Messaging Service (VMS). But, the BSEs do need to be purchased to provide the following functionality.

- Call forwarding to the VMS on a busy and/or no answer condition.
- Message Waiting Indication (MWI).
- Queuing into the VMS. This allows the caller to wait for the mailbox rather than receive a busy signal.

In other words, if the ESP does not purchase the BSEs for its service the ESP's customer will require an entirely different number for his/her mailbox. The ESP's customer will not receive MWI and callers will have to redial a number other than the ESP's customer's telephone number to leave a message.

BSEs are offered to ESPs to provide functional connection to the company's local exchange network to provide enhanced services to their customers. The individual BSEs are:

A. Message Waiting Indication - Audible

This service gives ESPs the ability to send an audible stutter dial tone to their customer's line, alerting him/her that a stored message(s) is waiting to be retrieved. The end user would then access his/her ESP to retrieve the deposited messages.

B. Forwarded Call Information - Intra-office

This service provides the ESP with information necessary for the handling of the call. It includes the delivery to the ESP of the called number, a code representing the reason for forwarding the call (busy, no answer, direct access to the ESP), and the identity of the hunt group assigned to the end-user's call. In order to meet the California Public Utility Commission (PUC) requirements, the calling number will be blocked. The only time the calling number will be transferred is when the customer calls the voice messaging system directly to retrieve messages.

C. Data Link

This service, in conjunction with a data private line channel, which must be established between the ESP's location and the central office, delivers the Forward Call Information (FCI) and Message Waiting Indication (MWI) activate/deactivate capability to the ESP within the same serving central office area.

D. User Transfer

This service temporarily holds an established call, originates another call to a third party, and then adds all three parties together for the purpose of a three-way conference call; or, transfers the initial call to a third party such as a live operator. When a call has been transferred, the original line/trunk is cleared to place or receive another call.

E. Queuing

This service provides customers subscribing to Voice Messaging Access Lines or CentraNet lines arranged in a multi-line hunt group with a queuing feature. Calls made to a multi-line hunt group equipped with the queuing feature will complete immediately if there is an idle terminal in the hunt group. However, if all terminals in the hunt group are busy, the call is placed in queue and waits its turn to be served.

F. Call Forwarding Busy Line - Fixed

This service allows the ESP's customers to have their incoming calls redirected to the predetermined directory number of the ESP, within the same central office serving area, when the end user's line is busy. The ESP must be preselected by the end user.

G. Call Forwarding No Answer - Fixed

This service allows the ESP's customer to have incoming calls redirected to the ESP's predetermined directory number, within the same central office serving area, when the end user's line is unanswered. This call forwarding occurs after a standard prespecified number of rings (typically 4 or 5).

H. Call Forward Busy Line/No Answer - Fixed

This service allows the ESP's customer to have incoming calls forward to the ESP's predetermined directory number, within the same central office serving area, when either a busy or no answer condition is encountered.

GTE is obligated by the Consent Decree to provide non-discriminatory network interconnection to ESPs, regardless of their affiliation to GTE. GTE's affiliated ESP and other competing ESPs will access the public switched network through the same standard network interfaces and access arrangements available through the Enhanced Service Provider tariffs (See local tariff supplied in this package).

Technical Interfaces

The Enhanced Service Providers systems will connect to the GTE central offices via the interfaces described in this sales kit. Interfaces will be provided in the 1AESS, 5ESS, GTD-5, and DMS100 central offices. The following central offices in California will have the required interface in 1991.

<u>ST</u>	<u>OFFICE</u>	<u>SWITCH TYPE</u>	<u>IN SERVICE</u>
CA	Del Ray	5ESS/1AESS	11/91
CA	Imperial	GTD-5	11/91
CA	Lakewood/Stadium	1AESS	11/91
CA	Long Beach Main	1AESS	11/91
CA	Santa Monica	1AESS	11/91
CA	Westminister	1AESS	11/91
CA	Alamitos	GTD-5	11/91
CA	Bel-Air	GTD-5	11/91
CA	Bundy SM	GTD-5	11/91
CA	Bushard	GTD-5	11/91
CA	Del-Amo	GTD-5	11/91
CA	El-Nido	GTD-5	11/91
CA	Huntington Beach	GTD-5	11/91
CA	Pacific Palisades	GTD-5	11/91
CA	Palm Springs East	GTD-5	11/91
CA	Redondo	GTD-5	11/91
CA	San Bernadino	GTD-5	11/91
CA	Santa Barbara	GTD-5	11/91
CA	Sierra Madre	GTD-5	11/91
CA	Sunnymead	GTD-5	11/91
CA	Sunset	DMS100	11/91
CA	University	1AESS	11/91
CA	Uptown	1AESS	11/91
CA	West Los Angeles	GTD-5	11/91
CA	Westwood	GTD-5	11/91
CA	Baldwin Park	DMS100	11/91
CA	Chino	GTD-5	11/91
CA	Covina	GTD-5	11/91
CA	Diamond Bar	GTD-5	11/91
CA	Glendora	GTD-5	11/91
CA	La Puente	1AESS	11/91
CA	La Verne	GTD-5	11/91
CA	Mar Vista	GTD-5	11/91
CA	Monrovia	GTD-5	11/91

<u>ST</u>	<u>OFFICE</u>	<u>SWITCH TYPE</u>	<u>IN SERVICE</u>
CA	Ontario	DMS100	11/91
CA	Palos Verdes	GTD-5	11/91
CA	Pomona	GTD-5	11/91
CA	Artesia	DMS100	11/91
CA	Azusa	DMS100	11/91
CA	Bellflower	GTD-5	11/91
CA	Camarillo	GTD-5	11/91
CA	Downey	GTD-5	11/91
CA	Manhattan Beach	DMS100	11/91
CA	Norwalk	GTD-5	11/91
CA	Thousand Oaks	GTD-5	11/91
CA	Rolling Hills	GTD-5	11/91
CA	Walnut	5ESS	11/91
CA	Warner	DMS100	11/91
CA	Claremont	GTD-5	11/91
CA	Clark	GTD-5	11/91
CA	Redlands	DMS100	11/91
CA	San Dimas	GTD-5	12/91

Notes:

1. If an ESP would like to interface with a GTE central office other than the ones listed above, an interface may not be available. Contact Kathie Shannon at (214) 718-4455 or Telemail K.S. Shannon to verify availability in other central offices in California.
2. The 1AESS is compatible with the following BSE's on an **intraoffice** basis only.
 - Call Forward Busy Line - Fixed
 - Call Forward No Answer - Fixed
 - Call Forward Busy Line/No Answer - Fixed

In other words, these BSE's are not available on an **interoffice** basis on the 1AESS.

Pricing

The Basic Service Elements are priced individually and should be purchased by the ESP on an individual basis. The following are the Non-Recurring Charge, Monthly Recurring Charge, and the General Service and Equipment Code (GSEC) for each service.

<u>Description</u>	<u>ISOC</u>	<u>NRC</u>	<u>MRC</u>
A. Message Waiting Indication - Audible, Per line or DID number	40979	*	*
B. Forwarded Call Information - Intra-Office, Per line or DID number	40980	*	*
C. Data Link, Per Data Link	40982 40981	*	*
D. User Transfer, Per line or DID number	40984	*	*
E. Queuing, Per individual line or trunk line	40986	*	*
F. Call Forwarding Busy Line - Fixed, Per line or DID number	40976	*	*
G. Call Forwarding No Answer - Fixed, Per line or DID number	40977	*	*
H. Call Forwarding Busy/No Answer - Fixed, Per line or DID number	40978	*	*
I. Three Service Package, (Call Forwarding Busy/No Answer, Message Waiting Indication, and Forwarded Call Information). Per line or DID number.	40987	*	*

* Proposed prices submitted to the Public Utilities Commission (PUC) are in the draft tariff provided in this Sales kit. These prices may be changed by the PUC prior to approval. In addition to these prices, primary and subsequent service order charges apply.

Sales Materials

When a customer asks for information regarding ESP services the following package should be sent to them:

- ESP letter (See Appendix 1)
- Technical description of the central office in which they will be interfacing
- Tariff

A copy of each is provided in this ESP sales kit. Appendix 1 identifies the recommended content for the ESP letter. This letter should be typed on your local letterhead. Make copies of each item for your customer as needed.

Sales Training

Additional training on ESP services is provided in the Voice Messaging Sales/Product Training courses. Contact your area training representative or Franceen Lyons, Telops Sales Training, at 214-615-3240.

Appendix 1

Date

GTE Business Office Address

2
3
4

Dear Enhanced Service Provider:

On _____, 1991, GTE received approval to provide public network interfaces for Voice Messaging Services in California.

The following is a list of the GTE central offices which are affected by this notice and provide for public network interfaces:

<u>Central Office Affected</u>	<u>Central Office Type</u>	<u>Date Available</u>
Del Ray	5ESS/1AESS	11/91
Imperial	GTD-5	11/91
Lakewood/Stadium	1AESS	11/91
Long Beach Main	1AESS	11/91
Santa Monica	1AESS	11/91
Westminister	1AESS	11/91
Alamitos	GTD-5	11/91
Bel-Air	GTD-5	11/91
Bundy SM	GTD-5	11/91
Bushard	GTD-5	11/91
Del-Amo	GTD-5	11/91
El-Nido	GTD-5	11/91
Huntington Beach	GTD-5	11/91
Pacific Palisades	GTD-5	11/91
Palm Springs East	GTD-5	11/91
Redondo	GTD-5	11/91
San Bernadino	GTD-5	11/91
Santa Barbara	GTD-5	11/91
Sierra Madre	GTD-5	11/91
Sunnymead	GTD-5	11/91
Sunset	DMS100	11/91
University	1AESS	11/91
Uptown	1AESS	11/91
West Los Angeles	GTD-5	11/91
Westwood	GTD-5	11/91

<u>Central Office Affected</u>	<u>Central Office Type</u>	<u>Date Available</u>
Baldwin Park	DMS100	11/91
Chino	GTD-5	11/91
Covina	GTD-5	11/91
Diamond Bar	GTD-5	11/91
Glendora	GTD-5	11/91
La Puente	1AESS	11/91
La Verne	GTD-5	11/91
Mar Vista	GTD-5	11/91
Monrovia	GTD-5	11/91
Ontario	DMS100	11/91
Palos Verdes	GTD-5	11/91
Pomona	GTD-5	11/91
Artesia	DMS100	11/91
Azusa	DMS100	11/91
Bellflower	GTD-5	11/91
Camarillo	GTD-5	11/91
Downey	GTD-5	11/91
Manhattan Beach	DMS100	11/91
Norwalk	GTD-5	11/91
Thousand Oaks	GTD-5	11/91
Rolling Hills	GTD-5	11/91
Walnut	5ESS	11/91
Warner	DMS100	11/91
Claremont	GTD-5	11/91
Clark	GTD-5	11/91
Redlands	DMS100	11/91
San Dimas	GTD-5	12/91

Note: The 1AESS is compatible with the following BSE's on an **intraoffice** basis only.

- Call Forward Busy Line - Fixed
- Call Forward No Answer - Fixed
- Call Forward Busy Line/No Answer

In other words, these BSE's are not available on an **interoffice** basis on the 1AESS.

If you are interested in ordering Public Network Interfaces in any of these affected central offices, please contact the appropriate GTE business office listed on the previous page to place your order.

DMS-100 INTERFACE SUMMARY

February 1991

Description:

The interface consists of a data link, or the Simplified Message Desk Interface (SMDI), and subscriber lines arranged in a UCD group. The data link carries information to the DMS-100 for initial call set up and the requests from the VMS for station Message Waiting Indication (MWI) activation/deactivation; the voice lines are used to carry the voice transmission to and from the subscriber's "mail-boxes" within the VMS.

Operation:

Once a line to the VMS has been seized, the DMS-100 sends the called party, calling party indentifications, and call forwarding condition encountered over the data link. After the calling party releases the call, the VMS determines whether MWI activation is required, and if so, sends a command to the DMS-100 over the data link, activating the Message Waiting queue for the particular station.

If the subscriber wants to retrieve messages, he/she establishes a call to the VMS and inputs a password to access their mailbox. The DMS-100 seizes a line to the VMS and then sends the call set up information over the data link to notify the VMS of its incoming call. The VMS then terminates the call to the correct mailbox, so the subscriber can receive the messages. At the appropriate time, the VMS determines whether MWI deactivation is required, and if so, sends a command to the DMS-100 over the data link. The DMS-100 then determines the need for deactivation in accordance with the station's office data and the status of it's Message Waiting queue.

System Requirements:

Minimum configuration - BCS - 24 (Centrex)
BCS - 29 (Residential)

5.0 Software Requirements

The following DMS-100 software packages are required:

- NTX100AA Integrated Business Network-Basic
- NTX101AA Integrated Business Network-Enhanced Business Service
- NTX732AA Simplified Message Desk Interface
- NTX730AA ASCII Driver
- NTX119AA Message Service
- NTX020 Vertical Services I - Call Forwarding - POTS
- NTX734AA Equal Access End Office - IBN PIC

The NTX100 and NTX101 packages provide the capability to forward calls to a message desk for call answering and message recording.

The NTX730 AND NTX732 packages add the SMDI capability to send call set up information over the data link from the DMS-100 to the message desk or the VMS.

For MWI activation/deactivation, the NTX119 Message Service package is required. This package provides Message Waiting Indication via lamp or stuttered dial tone.

The NTX020 package provides call forwarding and call set up information features for residential subscribers or POTS subscribers. The packages previously mentioned are also required for residential subscribers.

A calling number delivery blocking patch, GWR25C29, is required for every site.

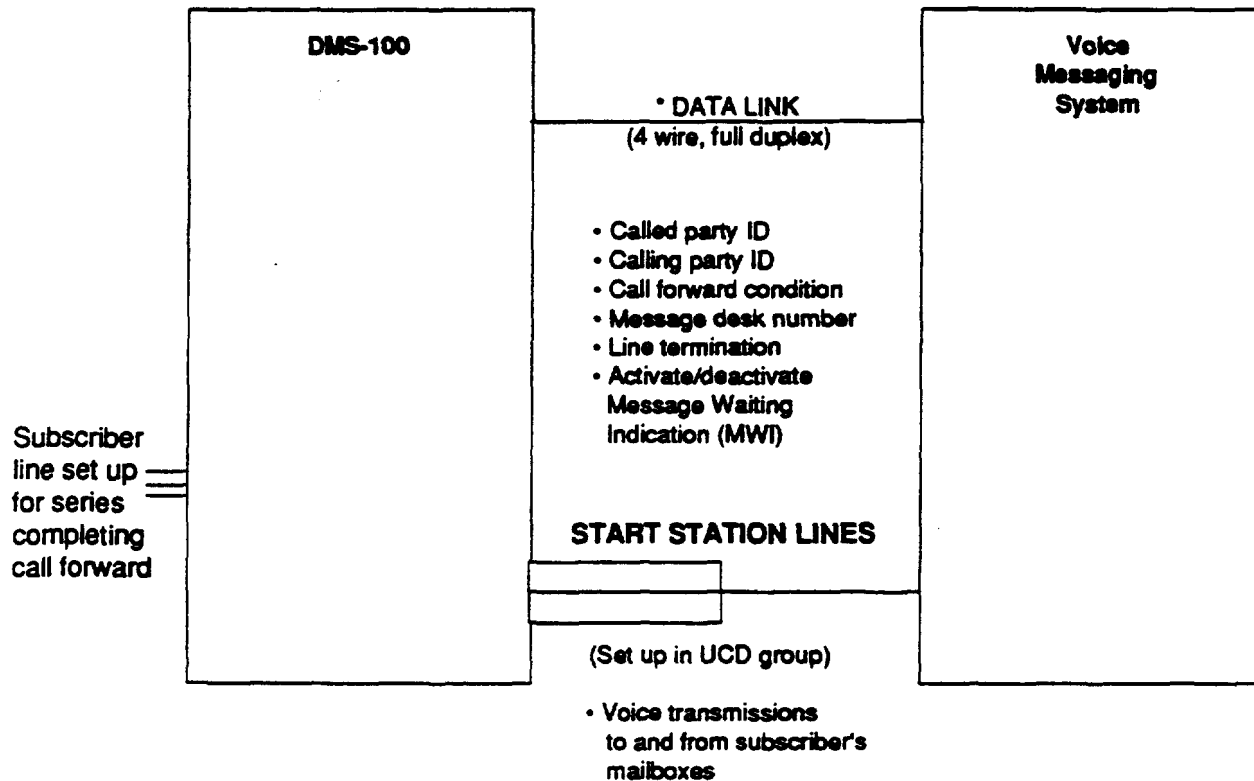
This software patch fulfills a Public Service Commission requirement in some areas to block the calling directory number from being delivered to the voice mail system.

The NTX734AA feature package allows the assignment of a primary interexchange carrier on a line-by-line basis. This allows the subscriber the most direct access possible to his primary carrier.

INFORMATION TRANSFER DIAGRAM

DMS-100

Appendix A
Page 4 of 4
February 1991



* Modem required if the physical path between C.O. switch and the VMS is greater than 50 ft.

GTD-5 INTERFACE SUMMARY

February 1991

Description:

In the GTD-5, the data functions and the voice functions are combined and signaling is passed over voice trunks.

Operation:

After a subscriber has properly activated call forwarding to the Voice Messaging System (VMS), calls are directed to the VMS group. Once a line to the VMS has been seized, the GTD-5 sends the called party, calling party identifications, and call forwarding condition encountered to the VMS. After the calling party releases the call, the VMS determines whether Message Waiting Indication (MWI) activation is required, and if so, sends a command to the GTD-5 to activate the Message Waiting queue for the particular station.

If the subscriber wants to retrieve messages, he/she establishes a call to the VMS and inputs a password to access their mailbox. The GTD-5 seizes a trunk to the VMS and sends the call set up information to notify the VMS of its incoming call. The VMS terminates the call to the correct mailbox, so the subscriber can receive the messages. At the appropriate time, the VMS determines whether MWI deactivation is required, and if so, sends a command to the GTD-5. The GTD-5 then determines the need for deactivation in accordance with the station's office data and the status of its Message Waiting queue.

System Requirements:

Minimum configuration - SVR 1.6.3.2.

The quantities reflect the required duplicate cards.

The Remote Data Link Controller (RDLC) card, FB-16220, is required when host-remote links contain 64 kbps data links. One RDLC card is capable of providing one data link for 16 span lines.

4.0 Software Requirements / RTUs

To implement VMS in an area that requires calling number delivery blocking, order these software packages:

SP-16163-VMSA or VMDS
CP-163xVMS
CP-163XVMS-RTU

Each succeeding site in that area requires:

SP-16163-VMSA or VMDS
CP-163XVMS-RTU

Software SP-16163-VMSA or VMDS is the calling number delivery blocking patch. The "A" denotes analog and "D" denotes digital. This patch fulfills a Public Service Commission requirement in some areas to block the calling directory number from being delivered to the VMS.

Software CP-163xVMS is the "one time" area fee. This software fee may be referred to as the TAC administrative fee. CP-163xVMS-RTU is the site right to use fee. In both cases, "x" denotes the SVR level.

5.0 References

The previous information was obtained from the following references:

EIM 90-01-01 GTD-5 EAX Voice Messaging and Expanded Announcement System RTUs.

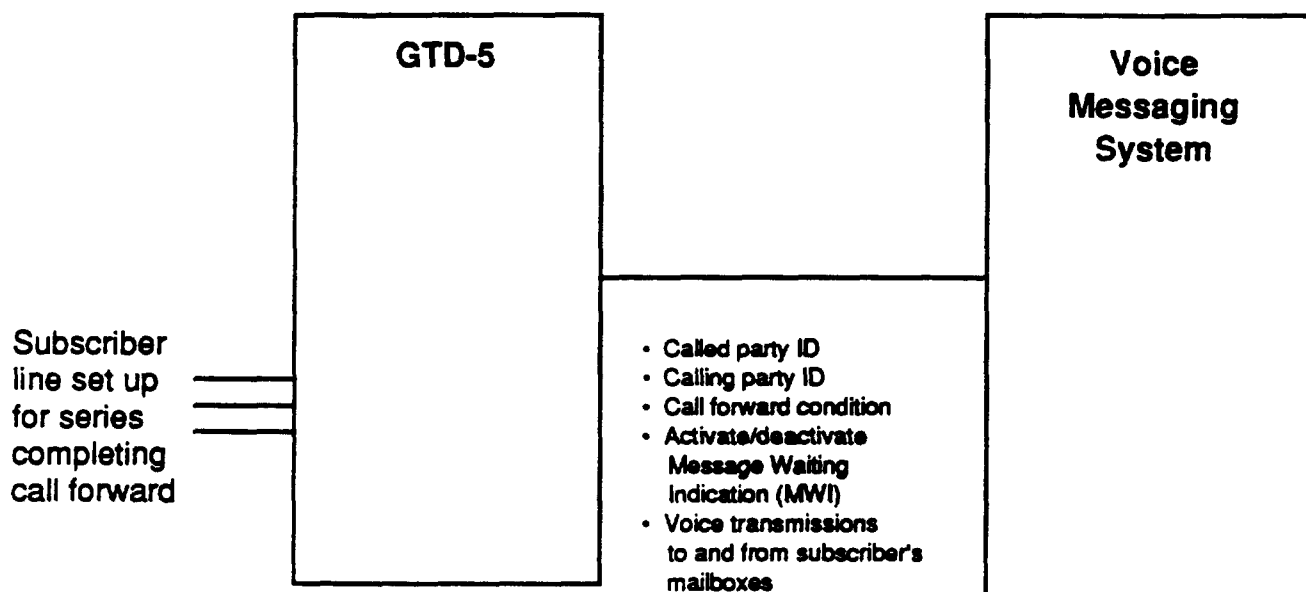
GTE Communication Systems GTE Practice 224-129-100, Digital Trunk-Facility Interface Unit Description, Issue 2, January 1987.

EIM 90-06-15-01, June 12, 1990.

AG Communication Systems Corporation, Equipment Interface Document to the Voice Message System, issue 1, February 1989.

INFORMATION TRANSFER DIAGRAM

GTD-5



** Both E & M and DTMF signaling are used in effecting the command/response functions.*

Note: Since it is a technical requirement of the GTD-5 that the Voice Mail interface be via a digital trunk group (T1), the ESP is NOT charged additional rate elements for the T1. The ESP should not order a T1. He should order a Voice Mail interface via a normal local access (PBX trunks, CentraNet lines, etc.). The EPS will, however, be served via a T1.

February 1991

5ESS INTERFACE SUMMARY

Description:

This interface consists of a data link and a Multi-Line Hunt Group (MLHG). The 3A Simplified Message Service Interface (SMSI) feature of the Advanced Communications Package on the Application Processor (AP) or a 3A Translator, is required for the data link. The data link carries information to the 5ESS for initial call set up and the requests from the Voice Messaging System (VMS) for station Message Waiting Indication (MWI) activation/deactivation; the voice lines are used to carry the voice transmissions to and from the subscriber's "mailboxes" within the VMS.

Operation:

After a subscriber has properly activated call forwarding to the VMS, calls are directed to the VMS group. Once a line to the VMS has been seized, the AP sends the called party, calling party identifications, and call forwarding condition encountered over the data link. After the calling party releases the call, the VMS determines whether MWI activation is required, and if so, sends a command to the AP over the data link, activating the Message Waiting queue for a particular station.

If the subscriber wants to retrieve messages, he/she establishes a call to the VMS and inputs a password to access their mailbox. The VMS then terminates the call to the correct mailbox, so the subscriber can receive his/her messages. At the appropriate time, the VMS determines whether MWI deactivation is required, and if so, sends a command to the AP over the data link. The AP then determines the need for deactivation in accordance with the station's office data and the status of its Message Waiting queue.

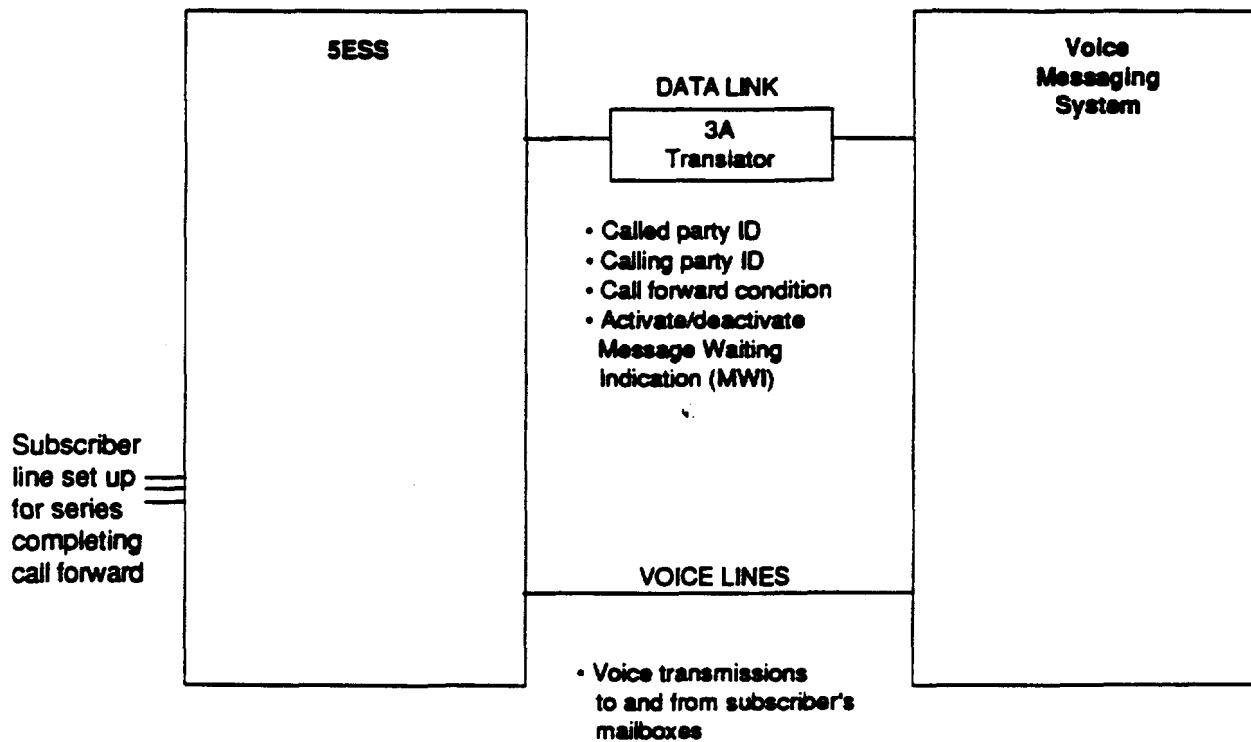
System Requirements:

Minimum configuration - 5EA.2 E/W Advanced Communication Package.

INFORMATION TRANSFER DIAGRAM

5ESS

Appendix A
Page 2 of 2
February 1991



1AESS INTERFACE SUMMARY

February 1991

Description:

This interface consists of a data link, or Simplified Message Service Interface (SMSI), and a Multi-Line Hunt Group (MLHG). The data link carries information to the 1AESS for initial call set up and the requests from the Voice Messaging System (VMS) for station Message Waiting Indication (MWI) activation/deactivation; the voice lines are used to carry the voice transmissions to and from the subscriber's "mailbox" within the VMS.

Operation:

After a subscriber has properly activated call forwarding to the VMS, calls are directed to the VMS group. Once a line to the VMS has been seized, the 1AESS sends the called party, calling party identifications, and call forwarding condition encountered over the data link. After the calling party releases the call, the VMS determines whether MWI activation is required, and if so, sends a command to the 1AESS data link, activating the Message Waiting queue for the particular station.

If the subscriber wants to retrieve messages, he/she establishes a call to the VMS and inputs a password to access their mailbox. The 1AESS seizes a line to the VMS and sends the call set up information over the data link to notify the VMS of its incoming call. The VMS then terminates the call to the correct mailbox, so the subscriber can receive the messages. At the appropriate time, the VMS determines whether MWI deactivation is required, and if so, sends a command to the 1AESS over the data link. The 1AESS then determines the need for deactivation in accordance with the station's office data and the status of its Message Waiting queue.

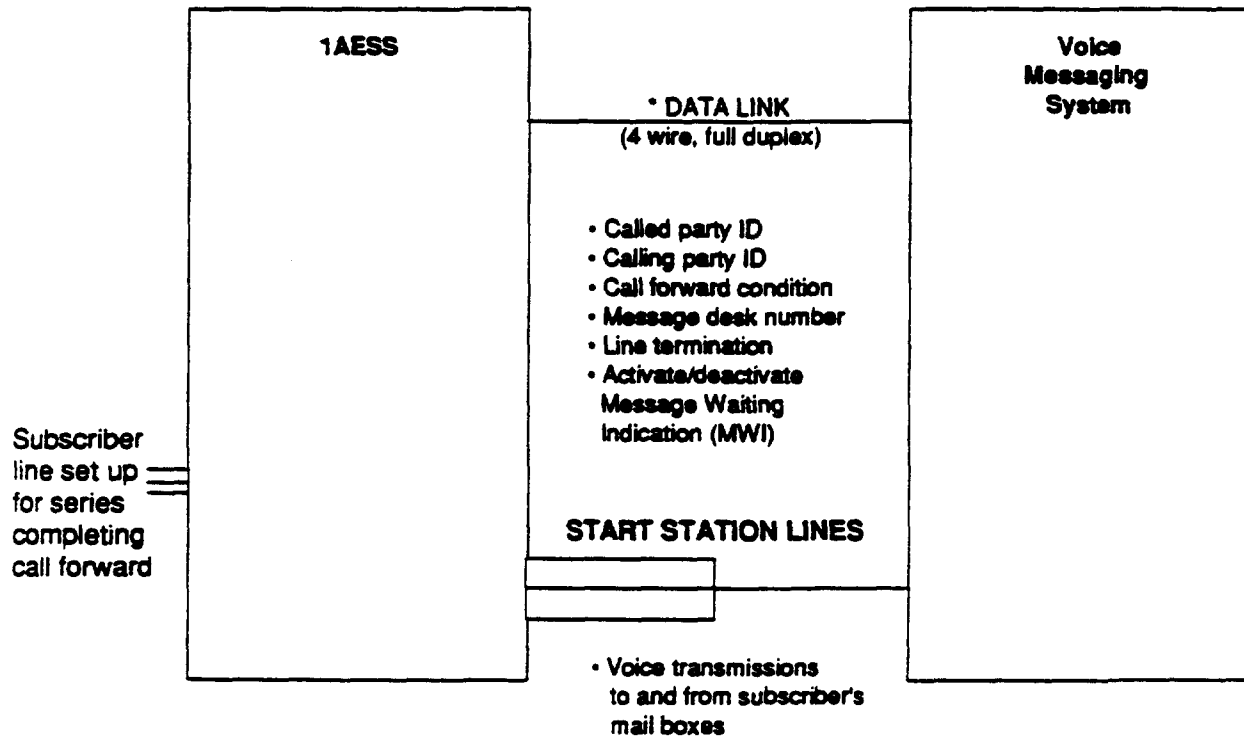
System Requirements:

Minimum configuration - E/W Advanced Communications Package.
Release 1AE9.08.

INFORMATION TRANSFER DIAGRAM

1AESS

Appendix A
Page 2 of 2
February 1991



* Modem required if the physical path between C.O. switch and the VMS is greater than 50 ft.

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